UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,492	02/12/2002	Guoshun Deng	2250.08US01	8781

			EXAMINER
7590	03/01/2006		MYERS, PAUL R

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ART UNIT	PAPER NUMBER
2112	

DATE MAILED: 03/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 September 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>16-35</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>16-35</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 1 is objected to because of the following informalities: The word boots is

misspelled boost line 7. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

3.   Claim 18 recites the limitation "the driver". There is insufficient antecedent basis for this

limitation in the claim.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 16-17, 19-21, 24-35 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ryu PN 6,453,414 in view of Miyauchi PN 5,717,886 and Rabinovitz PN 5,822,184.

In regards to claims 16, 27 and 35: Ryu teaches a multifunction semiconductor storage

device (PC card 210) capable of hot plug and play (PCMCIA) and being removable connected to

the host system (100 figure 2) through a general purpose interface (PCMCIA interface)

comprising: a semiconductor storage module (PC card nonvolatile memory Column 1 line 53-64) stores a boot up program (Boot record) of the operating system operating system programs (config.sys and autoexec.bat) to be automatically loaded from said semiconductor storage media module to said host computer (100) and boots the host computer (figure 4) after said multifunction semiconductor storage device being connected to said host computer (Step S310 Yes branch). Ryu does not teach the semiconductor boot card being disk type with a controller module. Miyauchi teaches a semiconductor memory that is a disk drive with a controller module (101, 102a, 105, 106) wherein said controller module comprises a general purpose interface control module (101), a microprocessor (102a) and control module (105), and a buffer module (106), wherein said general purpose interface control module interprets and transmits a general interface protocol and wherein said microprocessor initialize said general purpose interface control module. It would have been obvious to a person of ordinary skill in the art at the time of the invention to have Ryu's PCMCIA memory boot card be a semiconductor disk drive because this would have allowed for much greater memory capacity. Miyauchi does not teach disk controller determining a device class protocol of the storage disk. Rabinovitz teaches (Column 5 lines 36-43) that disk controllers normally determine a device class protocol of the storage disk. It would have been obvious to have Miyauchi's disk controller include this function because this would have prevented having to design and build a special disk controlled with out this function.

In regards to claims 17, 20 and 28: Ryu teaches the boot card being recognized by the BIOS of the host computer and reading and writing of the data.

In regards to claims 19 and 29: Ryu teaches the storage including the password and user ID of a user (Column 1 lines 44-47).

In regards to claims 21 and 30: Ryu teaches the interface being PCMCIA. Official notice is taken that USB, IEEE 1394, Bluetooth, IrDa infrared, HomeRE, IEEE802.112a and IEEE802.112b interfaces are standard interfaces. It would have been obvious to use any of these interfaces because they are standards.

In regards to claim 24: Miyauchi teaches simulating the function of a hard disk.

In regards to claim 25: Miyauchi teaches the disk having multiple partitions including partitions usable by the host.

In regards to claims 26 and 31: Ryu teaches SCSI.

In regards to claim 32: Ryu initializes the memory. Official notice is taken that detecting such features as capacity, manufacture (Such as Seagate or Maxtor), and quality of storage is well known in initializing memory. It would have been obvious to a person of ordinary skill in the art at the time of the invention to detect features of the memory as normally done in initialization because this would have allowed the memory to be used.

In regards to claims 33-34: Rabinovitz teaches different protocols between the computer and the memory's thus Rabinovitz inherently translates between the protocols.

6.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu PN 6453,414 in view of Miyauchi PN 5,717,886 and Rabinovitz PN 5,822,184 as applied to claim 16 above, and further in view of Garney PN 5,319,751.

In regards to claim 18: Ryu teaches the driver being stored in the BIOS ROM of the host. Ryu does not teach the device driver of the card being stored on the card. Garney teaches a

computer card in which the card includes the device driver for the card. It would have been

obvious to a person of ordinary skill in the art at the time of the invention to include the device

driver for the card on the card because this would have prevented the computer system operator

from having to install a driver in the host computer.

7.   Claim 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryu PN

6453,414 in view of Miyauchi PN 5,717,886 and Rabinovitz PN 5,822,184 as applied to claim

16 above, and further in view of Precourt PN 4,541,019.

        In regards to claim 22: Ryu does not teach write protection. Precourt teaches a standard

prior art disk includes a write protect switch and a power LED. It would have been obvious for

the Disk of Ryu in view of Miyauchi and Rabinovitz to include standard features of a disk drive

because this would have allowed for user familiarity.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

        PN 6,055,631 to Chadha teaches booting a PDA from a add in card.

        PN 5,070,474 to Tuma et al teaches solid state disk emulation including a disk controller

read and write and command translation.

        PN 6,330,634 to Fuse et al teaches a solid state disk controller including boot data.

EP 628908 A1 to Bedingfield teaches a solid state memory with onboard controller and resident boot code, including hot plugability with PCMCIA.

PN 2002/0078339 to Hung-Ju et al teaches a boot card with an assistant operating system.

PN 6,430,635 to Kwon et al teaches selecting among a plurality of communications protocols and translating between protocols.

PN 5,555,416 to Owens et al teaches automatic software installation bases on operating system environment.

PN 5,471,676 to Stewart et al teaches a boot card with an on board controller.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 571 272 3639. The examiner can normally be reached on Mon-Thur 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRM
February 13, 2006

PAUL R. MYERS
PRIMARY EXAMINER